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# HOUSING IN

and the Shape of Things to Come

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# HOUSING IN CANADA AND THE SHAPE OF THINGS TO COME ...

By E. G. FALUDI

DR. E. G. VALUIN—Born in Hungary. Received degree in Architecture in Rome. Worked in Italy as consultant architect and town-planner. Dr. Faludi is well known throughout Europe as an authority on the planning and construction of large-scale housing projects. He also wrote a great number of publications on these subjects. In 1939 he left Italy for England, where he contributed a series of articles to the "Architect's Journal" on war housing and rapid and emergency building systems.

In 1940 he came to Canada. Since his arrival he has made a comprehensive study of housing conditions in this country. In numerous articles published in the "Canadian Lumberman", "Timber in Canada", "Financial Post", "Canadian Forum", "Engineering and Contract Record", he advocates the need of a post-war housing program, the social and technical solutions for it and the great importance of the development of the prefabricated house industry in Canada for home and export purposes.

As special lecturer on housing he recently gave a course at the Social Science Department of the University of Toronto and lectured on the same subject from the technical point of view at the School of Architecture, McGill University, Montreal.

#### The Postwar Problem

THE last ten years have been filled with epoch-making events and crowded with problems on many fronts of human life which urgently demand solution. The increasing importance of social problems will have to be faced by the planners of the future life of this country. We must be prepared to face problems of a different kind of life and solve them satisfactorily.

It is generally believed that housing and urban reconstruction will be one of the most important social and technical problems, and the greatest field for investment and employment, in the future Canada.

The complexity of the housing problem and its importance in the life of the nation should induce the government and industrial and economic groups to co-operate in a new policy for a complete and permanent solution. In the past the policy for housing has been one of no planning for social and economic stability, carried out by unorganized, individualistic production methods.

In our individual lives we plan for things that affect for only a few hours as well as for things that affect our whole lives. To look into the future and plan for it is only to exercise ordinary intelligence. The individual who fails to do so for himself or for his family lacks an essential element of success. Such ordinary intelligence has not been applied to the problem of housing in the past. No long-term housing program was prepared and no organization was provided to handle the various aspects of the problem.

In approaching the question of housing it is necessary, first of all, to understand its true meaning. Too often its interpretation is limited to the provision of houses for the working class or the low income group at public expense. It really means the provision of shelter for all the citizens of a country and it includes the immediate environment as well.

Housing is one of the basic essentials of life, and since the pioneer era it has played a considerable part in building the economic life of this country.

In Canada, Mr. W. C. Clark, Deputy Minister of Finance, was the first governmental authority who recognized this fact. (1937)

"Construction is one of the greatest of our capital or durable goods industries and it is the drastic fluctuations in this group of industries that largely account for the wide differences in general economic activity as between good and bad times. Purchases of consumer's goods maintain a fairly steady volume, but the durable goods industries expand to extraordinary proportions during the boom period and lapse into comparative stagnation during the depression phases of the business cycle. Perhaps in 100 midustry is the range of fluctuation apt to be 50 wide as in construction, although residential construction is usually more stable than other branches of the industry. The bad effects of this extreme

variability on the general welfare can scarcely be exaggerated. The reason will be obvious if we examine the magnitude of the industry itself and of the long series of industries which produce its raw and processed materials—lumber, iron and steel, cement, lime, brick, stone, glass, heating equipment, plumbing equipment, and a myriad of others; the very large number of skilled craftsmen and unskilled laborers to which it gives employment, both directly and indirectly; and the fact that its effects on business activity and employment ramify so widely through every town and hamlet throughout the country.

"As everyone knows, the construction industry has been the most laggard of our major industries in recovering from the great depression. During the pre-depression period of eleven years, from 1921 to 1931, the average annual value of all construction contracts awarded in Canada was slightly greater than \$370,000,000, and the annual totals ranged from a low of \$240,000,000 in 1921 to a high of \$580,000,000 in 1929. During the worst year of the depression-1933-the total dropped to less than \$100,000,000, a decline of 73% from the 10-year average. Even for the year 1936 contracts awarded aggregated only \$163,000,000, and the annual average for the period 1932-36 was only \$135,800,000, despite a very large amount of government construction. For the 10year period 1921-31, the average annual volume of contracts awarded for residential purposes amounted to \$104,000,000, the total varying from a low of \$76,700,000 in 1921, to a high of \$139,200,000 in 1928. In contrast with these figures we have an annual average of \$32,500,000 for the last 5 years, a low of \$23,900,000 during 1933, and a recovery to only \$42,900,000 during 1936.

"It is little wonder that with building at so low a level, general business activity has been so depressed and unemployment has attained such proportions. Various inadequate surveys made in recent years have all indicated that a very large proportion of the total volume of unemployment was to be found in the construction trades and in the industries dependent upon them. An estimate of the 'backlog' of residential construction which took account of changes in construction costs, the secular growth in population, and the possible over-expansion of housing during the preceding prosperity period indicate a possible house-building requirement of as much as \$230,000,000 at the end of 1936. By the less refined statistical method, approximately the same result may be obtained. Roughly, the Canadian people possess two million houses, and the average life of a house may be assumed as fifty years. The average expenditure of \$100,000,000 for houses at an average of \$3,300, might be considered as reasonably normal and adequate under present circumstances. Thus 50,000 houses per year would be a fair estimate for new building. For the last 5 years, the total reported has not been more than half this amount. According

to this somewhat crude approach there would be a deficit of about 75,000 houses which at \$3,300 each would amount to a total of \$245,000,000.

"Obviously this must not be taken to mean that there is an effective demand for this amount of new home-building at the present time. Various difficulties must be overcome before this so-called 'backlog' can be translated into effective demand. But even this theoretical calculation is sufficient to give some idea of the magnitude of the market to be exploited by an efficiently functioning construction industry and of the beneficial results to our economy which would result therefrom in increased employment and decreased relief expenditures, in expanding business activity, in a rising volume of traffic for our railroads, in improved governmental finances, in a lessened burden of real estate taxation, in decreasing social discontent, and in a general stimulation of our whole economic life. It was for this reason that Parliament has endeavoured through the Dominion Housing Act, 1935, and the Home Improvement Loans Guarantee Act, 1937, to provide an effective stimulus to the house-building industry."

At the tenth meeting of the "Fortune Round Table" in September, 1941, a discussion was held on post-war transition problems. The question was raised as to what should be done with ten million new workers and a tremendously expanded plant when the present emergency ends. The consensus of opinion was that housing will create a new industry of more importance than aeroplane and automobile industries as a channel for investment and employment in the States. It is reasonable to believe that future housing in Canada will be equally important.

#### Canadian Housing in the Past

From the production point of view, from 1830—the so-called pioneer era—up to the present, a rapid development in housing is apparent. The primitive production of houses by individuals from material available on the building lot was soon changed to a production by skilled labourers with industrially produced materials, and finally today, to mass production of standardized houses prepared in the factory.

The first official Canadian document which detailed the social and economic effects of bad housing and recognized the implications for public policy of the problem, is a Report of a Conference held in 1918, between representatives of the Dominion and Provincial governments. The Report stated that the scarcity and the poor quality of housing were among the chief causes of social unrest, and led to the formation of a Housing Committee of the Cabinet which prepared a general housing scheme. A loan of \$25,000,000 was authorized by the Dominion Government to the provinces on the basis of a 25% participation, the loans to be made through the municipalities. In all 6,244 houses were built under the scheme.

The explanation of the failure of the scheme was given before a Committee of the House of Commons:

'The housing was initiated at a time when there was a shortage of labour and materials, resulting in abnormally high cost of building. The housing was not for the lowest income groups but for those who could invest a small equity. In many cases the houses were occupied by those who could have afforded better homes and for whom no financial assistance was necessary. When the housing shortage was taken up, values declined, with the result that those who had purchased the houses erected under the 1919 Act found their equity, which was very small, had been wiped out, and that they were paying more per month than they would have to pay to obtain the same accommodation on a rental basis in houses built when prices were lower. The result was that in some municipalities it was necessary to repossess some of these houses. During the past few years many of those who purchased these houses have been unable to meet their payments or to keep the houses in repair."

After 1930 trade depressions and unemployment virtually stopped the building of middleclass homes and reduced the capacity of the lower income class to pay rents. This resulted in a housing shortage, the overcrowding of residential areas, and of course in the deterioration of low rental houses and their neighbourhoods.

This was the background when, in 1935, the Dominion Housing Act and Home Improvement Guarantee Act were passed. The housing program which was to be served by these Acts had three objectives:

- To enable credit-worthy borrowers to build and own homes of their own;
- To assist the lower income class, who find it difficult to pay an economic rent, to occupy sanitary housing;
- To enable existing residential property to be modernized.

These Acts are described thus:

"The Home Improvement Plan takes care

of the property owner who wishes to modernize or improve his existing home. Under this Act the Government is authorized to guarantee loans made by banks or other approved lending institutions to owners of residential property for the purpose of making improvements, alterations or additions. Up to \$2,000 may be borrowed on a single family house, while in the case of a multiple family or apartment house \$1,000 plus \$1,000 for each family unit is provided for. Up to April 1939, 66,927 loans had been advanced, amounting to \$26,720,224. This result indicates that the owners have failed to take advantage of the legislation.

The Dominion Housing Act has a twofold purpose: (1) to assist in the improvement of housing conditions, (2) to assist in the absorption of unemployment by stimulation of the construction and building industries. The Act provides for loans for the construction of new dwellings as single family houses, duplexes, and apartment houses. A loan may be made for an amount up to 80% of the cost of the construction or its appraised value. In an 80% loan the lending institution advances 60% and the Government 20%, the equity of the 20% should be provided by the borrower. The interest rate paid is 5%. Loans are made for a period of 10 years, subject to renewal for another 10 years upon revaluation of the security. Interest, principal and taxes are payable in monthly instalments. The Act requires sound standards of construction.

In the original contracts which were entered into with approved lending institutions no distinction was made between large loans and small loans, or between loans in large or small centres. The degree of risk which the lending institutions have had to assume was too great to encourage the companies to make small loans or loans in small places on any extensive scale for amounts as high as 80% of the cost or the appraised value of the property.

In 1936, therefore, the Government decided to amend the formula, leaving the Government 80% of any losses where the amount of the loan is \$3,000 or less, and 75% of the loss where the amount of the loan does not exceed \$3,500. Up to July, 1938, the accom-

plishments achieved under the Dominion Housing Act were as follows:

Loans Units Amount 3,371 5,295 \$21,155,655 Average loan per unit: \$3,995.

"The National Housing Act which followed the Dominion Housing Act came into effect Aug. 1st, 1938. It was a much more comprehensive piece of housing legislation than either of the preceding acts, and was specifically designed to meet the needs of low income groups within their paying capacity.

The Act is divided into three parts:

Part I repeals the Dominion Housing Act of 1935, but re-enacts and extends it. It provides long-term funds to borrowers in any part of the country who wish to build houses for themselves. It gives assistance to the individual person building a low cost house for his own occupation. Provision is made for loans not exceeding 90% of the cost of the houses when the cost is not more than \$2,500.

Part II provides loans to local housing authorities and assists in the construction of houses to be rented to low income families. Local housing authorities may be of two kinds, limited dividend housing corporations formed by a group of private citizens and municipalities or any agency acting on their behalf.

Loans to limited dividend housing corporations may not exceed 80% of the cost of construction of houses; and loans to any other housing unit \$2,400-\$2,700. The municipality must agree to limit taxes of all kinds on the property to 1% of the cost of the project during the term of the loan and exempt it from income taxes. In some cases the province will have to pass legislation to give municipalities power to fulfil other requirements of the Dominion legislation. It is obvious that the success of the scheme depends upon the effective collaboration of all three levels of government.

The Act establishes the definition of families of low housing legislation. Families of low income are those whose total income is less than five times the economic rental of a housing unit which would provide sufficient accommodation for the family. Any family, therefore, that cannot find housing accommodation on the open market, is eligible to rent a house of an apartment on a low rental project. Un-

der the second part of the Act the Government authorized the Minister of Finance to grant loans up to \$30,000,000 to urban population for low rental housing projects in urban communities.

This part of the legislation was not followed by any action either by municipal or by provincial authorities because the municipalities were not able to handle the question, and the provincial government had no capacity to appoint an authority to build housing. The Act simply failed to provide the machinery to use the funds.

The practical lesson that can be learned from this unsuccessful experience and from the successful experience of the States and some European countries, is that the legislative body which provides the funds should also be responsible for establishing the machinery that can carry the legislation in practice, in the form of municipal and regional housing authorities.

Part III authorizes the Minister of Finance to pay bonuses for municipal taxes including school taxes for three years on houses under \$4,000 cost.

The total result of the National Housing Act up to January, 1942:

Loans Units Amount 19,265 24,385 \$80,928,235 Average loan per unit: \$3,322.

It is believed that the National Housing Authority will not accept any application for loans after April 1, 1942, except those made by individual borrowers for houses under \$4,000 building cost.

#### Present Situation

The basic problem which Canada will have to face in the future is first, the inability of the low wage earners to pay sufficient rent to make it possible for private enterprise to supply them with decent shelter. The statistics of the incomes in the various categories of wage earners show that Canadian workers are no more able to buy suitable housing accommodation.

Evidence submitted to the Parliamentary Committee on Housing in 1935 was to the effect that the minimum cost at which a house of the minimum standard of sanitation could and the poor quality of housing were among the chief causes of social unrest, and led to the formation of a Housing Committee of the Cabinet which prepared a general housing scheme. A loan of \$25,000,000 was authorized by the Dominion Government to the provinces on the basis of a 25% participation, the loans to be made through the municipalities. In all 6,244 houses were built under the scheme.

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Evidence submitted to the Parliamentary Committee on Housing in 1935 was to the effect that the minimum cost at which a house of the minimum standard of sanitation could be provided ranged from \$2,500 in Ottawa, \$2,700 in Toronto, to \$3,500 in Montreal, so that any family earning less than \$100 a month in Ottawa or \$140 in Montreal could not afford to live in a house of minimum standard.

#### Earning Capacity and Rent

The proportion of the family income available for rent may show divergencies from place to place and from family of family.

The following calculations\* show the preponderance of families that are unable to build or own their own homes, on the basis of the 1931 census:

Income	Amount available each month for shelter	No. of families	
Under \$400	Less than \$6.50	10%	
\$ 400-\$ 799	13.30	12%	
800- 1,199	20.00	18%	
1,200- 1,599	25.00	22%	of the
1,600- 1,999	33.00	12%	total
2,000- 2,399	40,00	7%	popula-
2,400- 2,799	46.00	5%	
2,800- 3,199	53.00	7%	
3,200- 4,909 { Over \$5,000 }	83.00	7%	

From this it can be seen than 62% of our urban families have an income which should not permit them to pay more than \$25 a month for shelter (20% of the income is a recognized budget for rent). In fact this group of families is compelled to pay from 30% to 50% of its income for shelter.

The opinion of the Dominion Committee on Housing in this matter was that a wage earner in the low income group could afford to spend at the most one-fifth of his income in rent.

#### Housing Shortage and Overcrowding

Building new houses to-day is very difficult because of building restrictions, scarcity of materials and labour.

The diminished production of dwellings will tremendously increase the room-overcrowding, bed overcrowding, land and traffic overcrowding which affects accessibility to homes.

The overcrowding of industrial centres for war production at present is growing daily with incredible speed. The slum areas are increasing continuously. The consequences of this will affect the new generation.

The population of eastern Canada is more amply provided with housing space than is the population of the more recently settled areas of the west. British Columbia, however, which has grown from the oldest western settlements, is the best provided in the west.

For the Dominion as a whole, the average number of rooms per person in 1931 was 1.27. In the provinces of Prince Edward Island, Nova Scotia, New Brunswick and Ontario, this average was exceeded; but in the remaining five, provincial figures were lower—because of the crowding in the rural areas.

For the three Prairie provinces, the average accommodation was less than one room per person in rural communities. Space per person in Prince Edward Island, Nova Scotia and Ontario was greater in rural than in urban areas, but the reverse was true in all other provinces. The Dominion average for the rural population was 1.19 rooms, as compared with 1.34 for urban dwellers.

The distribution of population in urban homes is less favourable. Considering only the persons living in less than one room, it was found that the percentage these formed of the total population was surprisingly high. The crowding in low rental homes is represented by the following figures:

In 1931 there were 51,778 households paying \$15 rent or less per month in the 20 largest cities of Canada. Approximately 5,000 were paying less than \$10 per month. In a very few of these cities the tenants lived in homes which provided an average of one room per person.

All these figures give evidence of crowding. At least 25% of the population in the majority of Canadian cities of over 30,000 lived in less than one room per person, in some cities 40% or more.

The cause of the crowding appeared to be insufficient income. The clearest evidence of crowding was shown for tenants paying \$15 or less per month, and for multiple family household tenants.

The average earnings per household in 1931 varied from \$1,934 to \$1,379. The average

<sup>\*(</sup>Humphrey Carver, "Social Welfare", Summer, 1939.)

earnings per person varied from \$516 to \$266,

The Toronto Housing Survey of 1934 revealed that for the 1,332 dwellings and 1,421 households examined, 75% of the dwellings fell below the minimum health standard, 16% were overcrowded; 58% were damp.

In the 1934 report of a housing survey of certain selected districts in Winnipeg, it is stated: "Of the total of 1,800 houses examined in the four districts, 1,300 rooms were used for both cooking and sleeping."

In one of the highly congested parts of the city of Montreal, 83% of the homes were overcrowded.

The housing problem is serious in the larger cities of Canada for the same reason as in Europe—namely, the rapid increase of population following industrial development.

#### Immediate Problems

At present Canada has to face three housing problems:

- The immediate need for houses for war workers.
- (2) The growing shortage of housing brought about by the continuous obsolescence of the existing dwellings, and the diminished production of houses.
- (3) The increasing demand for low rent housing in the urban centres, because of continuous migration from the rural areas, which will be probably accentuated by a mass immigration after the war.

#### Private or Public Housing

The immediate need of houses for defence workers is the main problem at present and is partly tackled by the government as public housing. From this fact the question arises now, whether housing is feasible through private enterprise or with government help. The notion that there is always a fundamental contradiction between public and private action, results from abstract prejudice rather than realistic thinking. It is true that those social needs which private enterprise alone cannot satisfy tend to become public responsibility. But it is equally true that every exercise of public responsibility for productive purposes stimulates the profitable expansion of private enterprise.

However, the building of low cost or low rent houses is of a character which private enterprise cannot undertake, even in normal times. Therefore there is no danger of doing with public funds what would otherwise be carried out by private finance.

#### War Defence Housing

The war defence housing is considered only for temporary purposes for the duration of the war from its location point of view, but it must be considered as a permanent achievement from a structural point of view. The contradiction of these two characteristics will create a new problem after the war.

The government, like the government of the States, has chosen a new type of construction as a rapid solution for defence housing, the so-called "prefabricated house" which could be demobilized after the war and assembled again on other locations where it would be more useful. This solution was chosen because the government believed that it would be socially wasteful to erect permanent dwellings where the existence of post-war industries is improbable. But it seems that the rapid development of the war industries and the continuous increase of industrial workers will create a new and more important social and economic problem, which has not been considered by the government. The great housing shortage will make it necessary to switch over these industries from war to peace work, and keep the war workers employed. Such a plan presents no difficulties, and the question to be faced is: what should be done with the structurally permanent houses and their temporary environment? The location of these houses, their relation to each other, the lack of planning of neighbourhood communities, and consideration of defence housing only from the standpoint of production of mere dwelling units will add a considerable number to the total of Canadian houses to be replaced, in a permanent environment.

#### Housing Needs

From statistical figures we can easily estimate that as a result of obsolescence, deterioration and changes in living standards, Canada requires 55,000 dwelling units per annum. In addition, the annual increase in urban population of about 50,000 per annum creates a normal demand for 10,000 dwelling units per annum. Therefore the total volume of supply should be 65,000 dwelling units per annum. The actual production of urban housing units in Canada during the last five years has averaged 15,000 dwelling units per annum (of this the National Housing Act has been responsible for 4,000 per annum).

Over the last five years we have lagged behind 200,000 units. Of course this will accumulate more and more as the war progresses, and when the time comes to switch from a war to a peace economy, the housing question will be the focal point of the peace industry.

# Present Supply Resources of Housing and Organizations for Building

In the last fifty years a large proportion of Canadian homes have been produced by small contractors.

The simplest form of organization is that represented by the carpenter or brickmason who, with helpers, builds houses for individual lot owners. The subdivision of these lots is usually based on the standard gridiron pattern without any consideration of the environment. The house is built with the use of a set of stock plans, and the only matter of importance is to avoid congruent front elevations.

As the business grows, the boss carpenter does less manual work himself and turns more and more of it over to subcontractors. He becomes a general contractor, computes the total of the subcontracts, adds 10% for overhead, 10% for profit.

Besides the small contractor we should mention the speculator-builder who builds on his own property. An individual or a company buys some acres of land, subdivides it into small lots and builds houses (sometimes also street utilities) and sells the completed dwellings with mortgages. He is really a form of land sub-divider who makes his profit from the land rather than from the house. He does not produce dwellings for use as living places but to facilitate the sale of the land. The average Canadian speculator contractor builds about 3 to 5 houses a year. There are

about 3,500-4,000 contractors and speculator home builders in Canada.

It is obvious that the future needs cannot be satisfied by the methods and production organizations of the past. The small contractors will not be able to satisfy them either from the quantitative or the qualitative and cost points of view.

In our century, when in order to obtain the best results with lower prices, thousands and thousands of products are manufactured in factories by machines, we have to confess that the building industry is still using a method that was in use centuries ago and which involves such large production costs that only certain categories of the population can afford them. Houses are still built by assembling a great number of small individual units by hand labour and exposed to weather conditions.

#### Industrialization and Mass Production Methods

The apparent success of the automobile, aeroplane and radio and other industries in creating a product capable of broad mass consumption has inspired technicians all over the world to solve the problem of building better houses at lower cost, with great ease and rapidity, introducing industrial mass production methods. The fact that the handicraft method of building houses is wasteful and inefficient and that the building industry is not an industry at all but a conglomeration of disintegrated units, such as builders, subcontractors, manufacturers, realtors, architects, makes it obvious that the solution of the problem lies in adopting the following principles:

- Complete factory fabrication, including utilities, such as heating, plumbing, wiring, interior and exterior finishes.
- (2) 300 days of annual employment of labour, instead of the present average of 110 days per year.
- (3) Standardized units of houses,
- (4) The use of new construction materials suitable for industrial mass production by machines.
- (5) The limitation of the time of erection of a house to few working hours.

Recently many concerns in the States have adopted the practice of marketing a complete house assembly. They have attacked the problem of building better and more cheaply on four fronts:

- (a) Purchasing materials and equipment in larger quantities from fewer sources.
- (b) Factory fabrication of larger units and units combining more than one purpose.
  (c) The use of materials suitable to their
- (c) The use of materials suitable to their function and to factory fabrication.
- (d) Reduction of waste.

Some of the concerns produced houses at substantial savings to the individual consumer under traditional building costs. The real production on a huge scale has only now materialized because the government in the States has assured a broad market to make mass-production profitable.

The manufacturers of the Canadian prefabricated houses are mostly lumber mill owners or builders with improvised production methods to satisfy the immediate needs. No firm exists in Canada which is prepared to produce houses (based on study, research, experiments and careful planning) through real industrial large scale organization such as would permit of prices within the reach of the majority of the people in normal times.

#### Large Scale Planning

Prefabricated houses are not the finished products, even if they are produced on an assembly line in a factory. However perfectly and completely they are produced in the factory they must be transported and placed in a definite position on the building lot, erected and connected with the public services to make a functional living machine from the parts or pieces prepared in the factory.

It is not enough, therefore, to produce houses by industrial mass production in factories, but it is also necessary to plan their inture position on the land, to continue the mass-production idea on the ground, to create whole communities at the same time instead of individually produced houses on haphazardly subdividually produced houses on haphazardly subdividuals, and financed separately for each purchaser. The present system of subdividing land on the gridiron pattern, developing it by individual builders and selling them through

individual organizations, increases the cost enormously. We must understand that the present social ideal and the future social need will demand something better than small houses spread over small building lots with no consideration of the life of the people in the houses and their relation to one another and to the community. The solution, therefore, is the large scale planning of a neighbourhood unit of at least 500 to 800 houses with all the social facilities for happy community life.

#### Planning for the Future

That the post-war task cannot be left to organize itself without careful planning, is clear. It is clear, also, that when the so-called reconstruction process is beginning to effect a switch over from a war to a peace economy, we cannot let the wrong forces take control of the rearrangement of industry and the housing that follows it. All these are matters for the experts, but it is the general public who will have to make the expert's planning useful—by demanding the appropriate legislation.

We all agree that any future planning must be positive planning; not merely planning that restricts and controls, but planning that performs. There are no technical difficulties to stop it. It is not a matter of undertaking any special work. Houses, factories and public buildings, roads and the rest of the utilities of town and country, all have to be undertaken in any case. We have to make the simple choice of doing it well or badly.

It is possible to continue to make miserable slums again, or procure an environment for a happier, fuller and richer life for all the people. It will not cost a cent more to do the thing well, it will take no longer; it will not rob anyone of his liberties. On the contrary, it will be cheaper and faster, and it will provide new liberties for everybody to enjoy.

It is no overstatement to say that the simple choice between planning and non-planning, between order and disorder which is going on at present in England in the midst of bombing and destruction, is the best lesson that, independently of the international situation, we should prepare the soil now in Canada for the future. A plan must cover the whole country with regional divisions and further local subdivisions. It must be the work of experts representing all forms of activity, including industry and agriculture. There must be no exemptions for any class of building and no limitations imposed by local or administrative boundaries.

### Organization for Production and Improvements

Problems that will have to be faced in connection with urban areas include

- (a) Extension of existing towns,
- (b) The rehabilitation of existing towns,
- (c) The provision of suitable new towns,

In rural areas healthy villages will have to be provided. In relation to all areas, urban and rural alike, certain standards of amenity will have to be laid down and observed, including reasonable facilities for community life.

Of course it is impossible to discuss in any detail these problems today, because we do not know the intensity of the changes the war will evoke. To escape into the future is a temptation just as much to be avoided as to escape into the past. But to escape the present is a double danger.

The questions arise now:

- (1) How should we organize?
- (2) How can we determine what improvements are needed?
- (3) How can we obtain those improvements?

War has shown us that it is possible to achieve a high degree of co-ordinated action in Canada's national life. Many things which are forced upon us as war emergencies may well prove to be fundamental steps toward a better world.

Experience in Great Britain and Continental Europe shows how essential for the maintenance of a good standard of housing is the cultivation of a local sense of responsibility and local interest, and how helpful may be the many local incentives which exist. This experience also shows the need for central authorities to bring home these responsibilities to local governments, to arouse them to perform the duties which are entailed, to stimulate them to assume a fair share of the costs, to assist them with guidance and with financial aid, and to supervise and co-ordinate their efforts.

Social and economic changes of far-reaching significance are taking place. Great strides were being made in scientific discovery, but the sum total of human happiness is not progressing at the same rate.

Building science is advancing so rapidly that we have no right to build for centuries.

A house should be regarded as permanent only for about 30 years, and should be replaced by an up-to-date one. All the materials in a house should, if possible, be designed to live the same useful life just as in a modern car.

After the war Canada will have several large factories which will no longer be required for producing aircraft, munitions, and tanks; but there will still be the plant, skilled labour and organization.

Why not switch these factories over to the production of houses, using the light, efficient, beautiful materials which led to such efficiency and economy in war industries?

Private enterprise and public housing bodies could be partners in the broad activity of providing adequate housing accommodation for the whole of the population.

#### Housing Research Institute

It is obvious that the future housing cannot be solved in a bureaucratic way, but must be adequately prepared in all its social, economic and technical aspects, by scientific procedure, through survey, study and planning. No government department could organize this; it needs a proper Research Institute, with experts to carry on the job with the same intensity as military preparations. Engineers, architects, economists, chemists, physicians, lawyers, social workers should collaborate to face new problems also, such as new immigration from Europe and from British Colonies in Asia, or the shift of the Canadian Japanese citizens, to adequate locations in the postwar period. It is also probable that new industries will be brought to Canada as a result of the disruption of European countries.

It is logical that Canada, with its immense natural resources and areas, could successfully cope with all the problems of its future life if everything will be organized for it in the right time.

All that is needed now is a decision.

#### REFERENCE BIBLIOGRAPHY:

 Housing in Canada (Census monograph No. 8, Dominion of Canada Dominion Bureau of Statistics), 1941.

- Housing, by A. E. Grauer (A Study prepared for the Royal Commission on Dominion-Provincial Relations, Ottawa, 1939.
- Report of the Lieutenant-Governor's Committee on Housing Conditions in Toronto.
- Housing, by W. C. Clarke (Dalhousie University Bulletins on Public Affairs, 1938).
- Housing Number, Social Welfare, September, 1917
- Housing Problems in Canada and the Part of Municipalities, by F. W. Nicolls (Ottawa, 1938).
- Housing is Needed, by Humphrey Carver (Social Welfare, Summer, 1939).

# Adult Education News

#### NATIONAL FILM BOARD COLOR FILM RELEASES

The National Film Board has issued a number of colour films which are available to adult education groups. There is a service charge of fifty cents a reel. The following is a brief description of four of these films:

#### Canadian Landscape

Running time 18 minutes Color 16 millimetres

Canadian Landscape is a new statement both in picture making and in art. Nothing quite like it has been done before.

To making the picture director and cameraman followed A. Y. Jackson, leading Canadian artist, into the lake country of Ontario and through the snow-bound valleys of Quebec. It shows Jackson back at work in his studio, developing his sketches into the finished canvasses. A number of his finest paintings are shown. Although of general interest this film has a special appeal to artists, art groups, art students, and art instructors.

#### Peace River

Running time 20 minutes Color 16 mm.

Story of the homesteader 1,000 miles north of the Canadian border. Here in the vast Peace River country, pioneers from Canada, America and Europe have planted wheatfields, fished the rivers and established fur farms. Though still in many ways frontier country air transport and railroads have done much to link this pioneer settlement with the modern world. Kodachrome brings the changing colors of the seasons vividly to life.

#### Maple Sugar

Running time 11 minutes Color 16 mm.

Early spring in Eastern Canada is maple sugar time. Sugaring, though not a large industry, is one of the oldest in Quebec and forms a definite part of the working and social life of the Quebec farm family. The film highlights the dazzling snow, the farmer's red sleigh, the tall blue shadows of the trees and the tawny colors of the boiling syrup. Commentary has been recorded in habitant English as well as in the more conventional English version.

#### Ottawa on the River

Running time 18 minutes Color 16 mm.

Life in Ottawa is filled with the color of many nationalities. Like all capital cities it belongs to the nation and in summer has a constant stream of tourists eager to visit Parliament Hill, the Peace Tower and the Memorial Chamber. The film shows the lumbering industry of Hull, the open market place in Ottawa where housewives gather to buy fresh fruits and vegetables. In winter there is skating on the river, skiing on the Gatineau Hills. Here is life in Ottawa all the way from Parliament Hill to the boys and girls practising ice hockey out on the back lots. (Also available in black and white.)

Groups wishing to use the films can obtain them from any of the following repositories:

#### BRITISH COLUMBIA:

L. W. Chatwin, Visual Instruction Division, University of British Columbia, Vancouver, B.C.

#### ALBERTA:

Supervisor, Division of Visual Instruction, Department of Extension, University of Alberta, Edmonton, Alberta,